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ABSTRACT

This paper is a brief overview of competency-based teacher education (CBTE) and competency-based certification (CBC). The notion of requiring teachers to demonstrate certain skills is examined in the light of questions on its long-range validity and utility. The author cautions against overreliance on CBTE and CBC due to a number of these unresolved questions. One of the key issues treated in the paper is the relationship between certification and the possible measurable specificity of behavior. (CL)

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COMPETENCY-BASED CERTIFICATION

WHAT ARE THE KEY ISSUES?

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COMPETENCY-BASED CERTIFICATION

WHAT ARE THE KEY ISSUES?

In September, 1972, John Pitman was appointed as a NEPTE Field Agent in Rhode Island. His area of expertise is Performance-Based Teacher Education and Certification. Since that time NEPTE has received several requests for information regarding these topics. This paper is an attempt to synthesize much of the current thinking on PBTE and related Certification issues and problems. It is not a detailed "how to" type report. The writer presents a brief overview of the concepts -- performance-based teacher education and certification and explains why he has chosen to use the term "competency-based." He then identifies three critical issues to be overcome if one is to successfully implement such an approach.

Roland Goddu

Director

New England Program in Teacher Education

June 1973

COMPETENCY-BASED CERTIFICATION:

WHAT ARE THE KEY ISSUES?

With perhaps more courage than good sense, I will try to synthesize for the reader much of what is currently in print on competency-based certification.* One should realize that this concept is much more than a single innovation. Webster defines innovation as, "the introduction of something new" or "a new idea, method or device". In a sense competency-based certification (CBC) is new, but it is really a collection of several ideas, methods or devices which are combined in various ways to produce rather sweeping changes in a total education or certification system. Many of the parts or components of CBC have been long recognized by educators. The "new" aspect of CBC is the way the several parts are combined into a total system. Those desiring to adopt or adapt a CBC system should always keep in mind that they are, in fact, adopting or adapting a system not simply selecting those practices which will easily mesh with an existing program or system. The adoption or adaptation of a system must certainly have many often complex implications, some explicit or readily apparent and some implicit or much less obvious.

CBTE -- PBTE -- CBC -- PBC -- HELP!

When one begins to read about this new "something" variously termed PBTE, CBTE, PBC or CBC he may think of, if he is old enough or a student of

*The term competency-based certification is used here rather than performance-based certification. The two terms are largely synonymous, but some difference does exist (see pages 3 and 4 for full explanation).

history, the New Deal and the alphabet soup of the late thirties. As a starting point let me define the new alphabet.

1. PBTE = Performance-Based Teacher Education
2. CBTE = Competency Based Teacher Education
3. PBC = Performance Based Certification
4. CBC = Competency Based Certification
5. PBTEC= Performance Based Teacher Education and Certification
6. PBE = Performance Based Education
7. CBE = Competency Based Education

But What Are These Things? Regardless of the terminology used there are some points of agreement. In this paper, I will be talking about performance-based or competency-based teacher education programs and certification systems. However, the reader should realize that the basic principles governing the operation of such programs could be applied to education programs at any level, e.g., elementary and secondary school programs.

Traditional teacher education programs and certification systems are "experienced-based." An experience-based program or system is one in which a student, "experiences a specified number of courses in specified areas of study and undergoes some kind of teaching experience," and is then ready to teach and receive initial certification.[1] The degree of explicitness required in a performance-based or competency-based teacher education program or certification system is much greater than in traditional programs.[2] Depending upon one's point of view this fact is either a key strength (blessing) or a major problem (curse) of the CBTE-CBC movement. The reasons for these widely divergent and contradictory points of view will be discussed later. In what ways are performance-based or competency-based programs more explicit?

Practically all writers agree on the essential or genuine characteristics of PBTE-CBTE programs. The list given here is taken from Houston and

Howsam and is essentially the same as Elam's list, though greatly condensed, the essential characteristics are:

1. Specification of learner objectives in behavioral terms.
2. Specification of the means for determining whether performance meets the indicated criterion levels.
3. Provision for one or more modes of instruction pertinent to the objectives through which the learning activities may take place.
4. Public sharing of the objectives, criteria, means of assessment and alternative activities.
5. Assessment of the learning experience in terms of competency criteria.
6. Placement on the learner of the accountability for meeting the criteria.[3]

In other words, in a performance or competency-based system one must clearly specify what the learner is to do, the degree or level of performance or competency expected (criterion) and the evaluation procedures to be used. The entire process is open to many concerned groups necessitating some type of cooperative program development and decision-making. The process should be flexible enough to provide for different learning rates and provide more than one type of learning activity (mode of learning).

Finally, all teacher education programs lead to some type of certification or credentialing. Since a performance or competency-based teacher education program is a major system with quite sweeping implications, it follows that existing certification systems designed for traditional teacher education programs also need to be changed. Consequently states have begun to explore new certification options and termed these options performance-based certification (PBC) or competency-based certification(CBC).

COMPETENCY -- PERFORMANCE: SAME OR DIFFERENT?

The majority of writers use the terms interchangeably and note that there is no difference. However, some writers and at least one state (Texas) do make a distinction between the two terms. So long as the user clearly defines his usage of terms, it probably makes little or no difference. However, it might be helpful to the reader to know what the distinction is in the minds of some writers and users.

Webster defines competence as, "means sufficient for the necessities of life," and the quality or state of being competent." Competent is defined as, "having requisite ability or qualities," "rightfully belonging," and "legally qualified or capable." Performance is defined as, "the execution of an action, something accomplished, the fullfilment of a claim." Perform is defined as, "to adhere to the terms of, carry out, to do in a formal manner or according to prescribed ritual."

One way to interpret the above definitions is to suggest that performance refers to specific actions prescribed which can be directly evaluated. Did or did not a given individual demonstrate that he could do something at the required performance level (established criterion level). Competency can be thought of as a more general state or quality of being. In this sense a person might demonstrate a single performance over a period of time and be expected to exhibit successively higher or greater degrees of competency at each level evaluated. One might also equate competence with the performance of a series of acts at or above the established criterion levels. The two terms are highly related and this alleged distinction may not be important. However those who do make a distinction usually do relate performances to initial acts such as one would expect in a pre-service teacher education program; and competencies to the initial act or acts and the continued

development of these acts during in-service training. Thought of in this way, competency-based teacher education is a broader interpretation of teacher education, in terms of time and the relationships among discrete performances, than is performance-based teacher education. In the remainder of this paper I will use the term competency-based certification (CBC). It seems to me to be more appropriate than performance based certification; and, defined as noted above, much less restrictive than performance-based certification (PBC).

BEYOND SEMANTICS

It is a good deal easier to define terms (semantics)than it is to reach operational agreement -- what one will do with his terms. At this point the descriptions of CBC systems become quite complex, divergent, highly debatable, and very difficult to validate (verify or substantiate, prove with evidence). This last point is particularly bothersome since few if any CBC systems have yet been fully implemented or been in operation long enough for one to gather evidence as to their worth. Consequently, debate rages as to whether they should be tried without more evidence. My own judgement is that CBC systems must be carefully developed and tested to provide needed information; but, due to the existing scarcity of evaluation information, a CBC system should be implemented as an alternative system -- at least until we have better evaluations of such systems. I have referred to CBC as a system. In fact, as the logical extension of a pre-service CBTE or PBTE system. Before leaving this point the difference between pre-service teacher education and in-service teacher education should be clarified.

Pre-service teacher education in the context of PBTE-CBTE refers to those competencies that a prospective teacher is expected to demonstrate prior to graduation and initial certification. This is a most general

definition. Such competencies may be demonstrated on a college campus or in a field setting. Field setting being defined as a school or state operated teacher center as opposed to an institution of higher education. The evaluation of competencies may be conducted by college personnel, school personnel, center personnel or in various combinations. The central factor is that the competencies demonstrated in a pre-service program are initial or beginning competencies.

In-service teacher education refers to the training a teacher receives after initial certification. In most, if not all, states the assumption is that a teacher needs to receive additional training periodically in order to be recertified or move to a more permanent type of certification. Typically, such additional certification is tied to course or hour requirements on a periodic schedule, e.g., six hours every five years. In the context of CBC, additional or recertification, as in initial certification, refers to particular competencies which a teacher is expected to demonstrate while on the job. Again this is a most general definition. There is a great deal of variety in the ways the various states operating or proposing CBC systems have defined pre-service and in-service certification.

One conclusion does seem logically valid. If one agrees that there are in fact certain competencies necessary for initial certification, and that some advanced or additional training is a reasonable base for recertification; then, at the very least, one should expect a teacher to be able to demonstrate improved levels of competency on the initial performance over time. If one accepts this reasoning, most in the PBTE-CBTE movement do, the relationship of pre-service to in-service teacher education must be very close. In fact, teacher education may be thought of as a series of concentric circles. (See diagram one.) One starts with a core which represents the individual when he starts a teacher education sequence. Traditional

DIAGRAM ONE

Competency # 1
Competency # 2
Competency # 3
Competency # 4
Competency # 5
Competency # 6
Competency # 7
Competency # 8
ENTRANCE
CORE

programs typically define certain minimum entrance requirements. The second circle represents the pre-service phase of a teacher education sequence. Certain competencies have to be achieved to a given degree or criterion. The final circle and the largest represents the in-service phase of teacher education which theoretically continues and expands throughout one's teaching career. The competencies that one certifies are those shaded portions of the circles. As can be seen from the diagram the shaded portions expand overtime in teaching which is consistent with the present practice of levels of certification. Certification could be required at any point during the in-service phase. The link between pre-service and in-service competencies is direct. Additional competencies can be added at any point during the in-service phase. It is important to note that not all portions of the circles are shaded or evaluated. This is for these two reasons. First, a person theoretically is constantly expanding in his abilities, and not all individuals have the same capacity for or rate of growth. Secondly, we cannot presently measure all competencies, especially affective ones, accurately. Consequently, the shaded portions represent those competencies which we might define as a basic core which all teachers should possess. If differentiated staffing grows in usage, not all teachers would have to have all basic competencies but would be expected to continually develop certain competencies. This does not prevent the development of other competencies and allows considerable freedom for individuals to develop the open areas of the circles as they desire. A caution before briefly discussing three key operational questions. The model (picture) of pre- and in-service is included to help the reader visualize one man's view of the relationship between pre-service and in-service teacher education. This should in no way be taken as the only way or even as the generally accepted view. Regardless of "the view," a CBC system must pro-

vide for all levels of certification. A review of material from most of the states that are actively involved with CBC shows there to be at least three major issues which must be resolved as one develops a CBTE and CBC system.

BROAD BASED INVOLVEMENT -- CONSORTIA

It was noted earlier that CBTE and CBC are total systems with sweeping implications. A competency-based system is complex and will affect many different groups. Consequently, planning for such a system must include all groups who will be affected. There have always been some cooperative relationships in teacher education and certification procedures. Student teachers must, after all, teach in an actual classroom. Cooperating teachers in the schools must work with teacher education supervisors. State departments of education interact with institutions of higher education in developing procedures for approving programs and in establishing certification criteria. The difference in a CBC system is the degree of cooperation required. Many existing relationships must be changed. This becomes a major issue in that existing power bases may need to be changed. People or institutions typically do not want to give up their existing powers of decision. In the final analysis a competency-based system requires significant changes in the ways the many elements (groups) are now operating and/or cooperating.

What groups are involved? Houston and Howsam identify nine separate groups who will be affected by a major change in existing teacher education procedures. They are:

1. The institution of higher learning as a system with its subsystems that bear specific responsibility for teacher education and with its management and support subsystems.

2. Related and involved subsystems on the campus, particularly the college of arts and sciences.
3. Teacher-education students, both as individuals and organized groups.
4. The units that operate the schools (primarily local school districts).
5. The state and its agencies that govern and control teacher education, certification, conditions of teacher services and school curricula.
6. The organized teaching profession (as distinct from units that employ teachers.)
7. The public as it is represented in local and state politics and in direct contact with community or neighborhood schools.
8. Other governmental and community agencies that interact with education through commonalities of concern or overlap of functions.
9. Other interest groups with concern for education.[4]

As can be seen from this list a major system change is a complex endeavor. It is one which requires many inputs and careful planning <u>from the very beginning of the process</u>.

Houston and Howsam further note:

> Each element will react in accordance with its own perception of its interests. It may choose to agree or disagree, support or oppose, strengthen or subvert. Furthermore, any response initiated by one element produces whole new patterns of interactions and forces. It is the realization of this commonality of interest and of the systemic nature of change that leads to recognition of the need for <u>planned change</u>. No haphazard or piecemeal approach can hope to succeed in this complex system. A mutual respect for the interests and concerns of all elements leads readily to the idea that change should be planned through consortia. If planning must account for all elements, then all elements must have a voice in the planning. . . . the planning process itself is a major input to change.[5]

In summary, the obvious point is that a move to competency-based teacher education and certification is a move toward accepting a new.

organizational system for planning and operating teacher education and certification. Such a move will not succeed if done in a piecemeal fashion. Systematic or planned system change is called for and all effected must be involved in the process.

ESTABLISHING COMPETENCIES: WHAT SHOULD TEACHERS DO?

The only totally honest answer to the above question is that we do not know, for sure. Different individuals and groups (professional and non-professional) think they know what a "good" teacher should do. Certainly teacher-education as a profession is based upon considerable study and research which supports the inclusion of certain areas of study in a teacher education program. The problem occurs when one tries to define particular teaching behaviors that all teachers should possess. Herbert Kliebard reviews research done on teacher education and notes, "it would be difficult to name even a single specific behavior that has been shown to be consistently correlated with a reasonable definition of competent teaching."[6] He concludes with the following statement, "we might as well face the possibility, indeed the likelihood, that teaching may not consist of standard best ways to do particular things."[7]

The above comments do not mean that competencies should not be stated! In fact, an Educational Testing Service Report states:

> The lack of a substantial scientific foundation to support the choice of teaching skills to be learned does not mean that professional educators or teachers themselves have no idea as to relevant competencies needed in teaching. There is a rich, if not overabundant, literature on teaching and teaching skills. But the concepts, theories, and hypotheses about teaching skills necessary to produce certain desirable changes in pupils are largely untested. To say that they are untested does not mean that the ideas are worthless, only that their validity remains to be demonstrated.[8]

Further, if one talks to a group of experienced principals or college student teacher supervisors they are apt to say they can easily identify a "good" teacher. What is interesting here is they probably can do this with remarkably little difference of opinion. But, if the same people were asked to list those particular competencies peculiar to a "good" teacher, there would be very little agreement.

The foregoing comments suggest the following tentative generalizations: (1) Competencies can be identified by various groups involved with teacher education (2) Agreement over general areas of teacher competency (groups of competencies) can be achieved with little difficulty, (3) Agreement among and between groups as to specific teaching competencies will be more difficult and subject to considerable discussion, and (4) It is most important that competencies be clearly stated so that they may be tested and validated.

It would also seem that a state moving toward a CBC system should be very cautious in legislating overly specific lists of teacher competencies, at least until more evidence is available to support selected competencies. In fact, most states are avoiding the specification of comprehensive lists of teacher competencies. Most states provide considerable latitude for consortia to select specific competencies within general guidelines.

Yet, there is a potential danger in stating overly general guidelines for the development of competencies. To the extent that some quality control is desired by a given state, consortia must be provided with clearly defined process guidelines which might address such topics as, (1) type and or level of competencies, (2) management and (3) evaluation procedures. The intent of such process guidelines would be to insure that all operating consortia followed certain <u>minimum</u> criteria, <u>not</u> to

dictate specific competencies nor teaching methodology.*

In summary, considerable material on teacher competencies is available, but few if any specific teacher competencies are as yet validated by research. Consequently, groups moving into CBTE programs and states moving toward CBC should view their competencies as tentative (subject to change) rather than absolute (fixed or proven). Also, due to the tentative nature of teacher competencies, it is this writer's judgement that CBTE and CBC systems should, at present, be developed as alternative systems rather than as total replacements to existing teacher education systems.

EVALUATING COMPETENCIES: WHAT DID TEACHERS DO?

It was noted early in this paper that the high degree of explicitness required in CBTE programs may be thought of as a key strength or major weakness of the movement. This is probably not as great a contradiction as it appears.

Explicitness is a strength because a clear statement of goals and objectives related to various competencies selected allows all groups concerned to focus directly on what the learner is expected to do and facilitates the selection of appropriate evaluation procedures for the the given goals and objectives. If goals and objectives are not explicit there is apt to be: (1) considerable disagreement over terms which turn out to be largely semantic in nature, and (2) evaluation which is only loosely related to the given goals and objectives stated.

*This particular problem (over-specification versus over-generalization of competencies) is discussed in more detail in Summary of Actions Taken by Selected States Involved in Developing Competency-Based Certification Systems, by John C. Pitman, New England Program in Teacher Education.

Explicitness is a weakness or danger in that goals and objectives selected may tend to focus on low level competencies which are easiest to state and evaluate. Further if one were to attempt to list all possible competencies the flexibility required for individual learning sytles would suffer. In essence, highly specific guidelines -- lists of suggested competencies in various fields -- tend to be taken as absolutes rather than as bases for particular program development.

A competency-based program is neither positive or negative in itself. It may become positive or negative in the minds of those evaluating or effected by a given program. Programs that focus on low-level competencies or list all possible behaviors as givens are apt to be labeled mechanistic (negative) and may well be overly restrictive. If key groups such as teachers associations are not involved in the establishment of competencies and in the procedures for evaluating competencies, especially those beyond initial certification, they are apt to have little regard for or commitment to a given program.

In short, the very explitness of CBTE systems and CBC systems makes it possible for one to identify more clearly exactly what the values and objectives of the system are. Consequently one can more readily support or oppose and accept or reject any proposed system. It is my judgement that if the entire process of developing a CBTE or CBC system is open (done through some type of consortium) values are inherent in the development. Some like Broudy[9] say CBTE is devoid of real value questions. It may be if those developing a given system come from a limited value base. I don't see how a consortium approach can escape, even if one wanted to, the resolution of conflicting value bases.

The foregoing is not really, I hope, a digression. The explicit statement of competencies does suggest the means of evaluation one might employ.

> An evaluation program yields data that provide a basis for judging the worth of the program, and data from which judgements can be made about improving the program. This inquiry about the validity and utility of the training program rests on the evidence that is accumulated about its effects.[10]

The two key terms in this definition of evaluation are validity and utility. Any evaluation of selected competencies needs to be concerned with the immediate utility of the activities employed to develop the selected competencies. Did or did not a series of activities prove to be effective and if not, why not. Yet, this is only part of the necessary evaluation process. The longer range and more difficult questions concern the ultimate value of the total program or system. Do a given set of competencies make a difference in terms of student learnings or teacher behaviors?

There are currently many possible evaluation techniques that one can use to measure the immediate or short-range utility of learning activities or learning units (sometimes called modules or module clusters). There is far less information on appropriate techniques for evaluating overall program or system values in terms of their effects on learner behavior.

Turner has discussed the problem of immediate and long range evaluation of CBTE and defined six levels of evaluation. This formulation is widely accepted by others in the field of PBTE-CBTE. Turner's levels are:

1. Observations of the teacher in the classroom and systematic analysis of the level of outcomes achieved by the teacher with the pupils he teaches (pupil outcomes).
2. Same as level one except evaluations confined to the first year of teaching.
3. Observations of teacher behaviors but no evaluation of the effect of these behaviors on pupil outcomes.
4. Limited teacher observation -- only a few selected behaviors are checked.
5. Limited teacher observation as in #4, but not necessarily with actual students. Might be simulated students.

6. Person only needs to show he understands a behavior, i.e., paper and pencil tests, oral examination, etc.[11]

Writers point out that the present state of the art in evaluation is almost entirely restricted to levels 3-6 with most in levels 4-6. In short there is a pressing need for CBTE research which will, help to "develop a taxonomy of teaching performance whose elements have been demonstrated to affect student learning significantly; and . . . (that will help to) develop reliable and valid measures of these teaching performances."[12]

The importance of the foregoing is that (1) careful evaluation designs for both immediate and longer range evaluation are critical to CBTE, CBC systems, (2) the explicitness of stated selected competencies should assist in selecting or developing appropriate evaluation strategies, and (3) all stated competencies should be taken as tentative and subject to revision as evaluation data becomes available. Also, the foregoing suggests that (1) value questions must be considered as one develops a system, (2) the values inherent in a given program may cause the program to be viewed as positive or negative, (3) to be viewed as positive all the major groups effected must have a stake in the evaluation process, and (4) due to the scarcity of evaluation instruments for some competencies (especially affective ones) not all competencies may be capable of level one evaluation.

SUMMARY

In this brief overview of CBTE and CBC systems I have attempted to note what I consider to be the primary issues which must be resolved in some manner as one builds a CBTE or CBC system. Some type of broad-based group or consortium seems to be required and should be utilized to a far greater degree than in most traditional teacher education systems. Competencies can

identified, but as relative not absolute requirements. That means that stated competencies must be carefully evaluated in terms of immediate utility and longer range validity (validated in terms of learning consequences). The movement toward CBTE and its related credentialing system CBC has much to offer and should be carefully tested. However, due to the number of key and as yet unresolved questions, users of CBTE or CBC systems should be cautious in advocating total change-overs to such programs. It would seem mandates (legislative directions) should be limited to general process guidelines, if utilized at all.

FOOTNOTES

[1]Stanley Elam, Performance-Based Teacher Education: What is the State of the Art? Washington, D.C.: American Association of Colleges for Teacher Education, December, 1971, p. 1.

[2]Elam, pp. 1-2.

[3]Robert W. Houston, and Robert B. Howsam, eds., Competency-Based Teacher Education: Progress, Problems, and Prospects, Palo Alto, Calif.: Science Research Associates, 1972, pp. 5-6.

[4]Houston and Howsam, p. 11.

[5]Houston and Howsam, pp. 11-12.

[6]Herbert Kliebard, "What Is the Question in Teacher Education", Madison Wisconsin: University of Wisconsin, n.d., p. 12.

[7]Kliebard, p. 22.

[8]Educational Testing Service, A National Commission on Performance-Based Education: Its Feasibility, Proposed Organization, and Program, A Report to the Rockefeller Brothers Fund, Frederick J. MacDonald, Director, Princeton, New Jersey: Educational Testing Service, Vol. I, 1972, p. 19.

[9]Harry S. Broudy, A Critique of PBTE, Washington, D.C.: American Association of Colleges for Teacher Education, May, 1972.

[10]Frederick J. MacDonald, "Evaluation of Teaching Behavior", in Competency-Based Teacher Education: Progress, Problems, and Prospects, Palo Alto, Calif.: Science Research associates, 1972, p. 57.

[11]Richard L. Turner, "Relationships Between Teachers for the Real World and the Elementary Models Programmatic Themes and Mechanisms Payoffs, Mechanism and Costs", in The Power of Competency-Based Teacher Education: A Report, Benjamin Rosner, ed., Boston: Allyn and Bacon, Inc., 1972, pp. 198-200.

[12]Educational Testing Service, pp. 22-23.

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The Committee on Performance-Based Teacher Education, American Association of Colleges for Teacher Education, One Dupont Circle, N.W. Washington, D.C. 20036, Karl Masanari, Director.

The Multi-States Consortium on Performance-Based Teacher Education, Division of Teacher Education and Certification, New York State Department of Education, 99 Washington Avenue, Albany, New York 12210, Theodore Andrews, Director.

The National Consortium of CBE Centers, Florida State University, Tallahassee, Florida 32306, Norman Dodl, Director.

The Southern Consortium, North Carolina Centeral University, Durham, North Carolina 27707, Norman Johnson, Director

The "Teacher Center" Leadership Training Institute, University of South Florida, Tampa, Florida 33620, B. Othanel Smith, Director

The Committee on National Program Priorities in Teacher Education Task Force '72 "outside Track", Office of the Graduate School, City University of New York, New York, 10018, Benjamin Rosner, Director.

National Center for the Improvement of Educational Systems/Teacher Corps, United States Office of Education, FOB #6, Room 4171, 400 Maryland Ave., S.W., Washington, D.C. 20020 , Allen Schmieder, Director

Rhode Island Teacher Center, Roger Williams Building, Hayes Street
Providence, RI 02908 Kenneth Mellor, Director